DOCUMENT RESUME

ED 172 176 CS 004 883

AUTHOR Aoki, Elaine Mei
TITLE The Effects of Active Student-Initiated Responses on Literal and Non-Literal Reading Comprehension and Attitudes toward Reading of Third-Grade Students.
PUB DATE [77]
NOTE 32p.; Research prepared at the University of Washington

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Educational Strategies; Grade 3; Primary Education; Questioning Techniques; *Reading Comprehension; Reading Improvement; *Reading Instruction; *Reading Research; Response Mode; Student Motivation; *Student Participation; *Teaching Methods

ABSTRACT

To determine the effects of active student-initiated response lessons as an alternative to teacher-directed strategies for increasing reading comprehension, third grade children were placed into either an experimental or a control group. The experimental group received a series of lessons based on active student-initiated responses. These included instruction on questioning strategies, storytelling, story theater, role playing, and culminating activities. The control group received lessons based on teacher-initiated oral/written questions. The findings indicated a trend favoring the experimental strategy as compared with the control. Significant differences favoring the experimental treatment were found in regard to nonliteral responses and in attitude toward reading. (Author/FL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED172176

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

THE EFFECTS OF ACTIVE STUDENT-INITIATED RESPONSES ON LITERAL AND NON-LITERAL READING COMPREHENSION AND ATTITUDES TOWARD READING OF THIRD-GRADE STUDENTS

Elaine Mei Aoki

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Elaine Mei Aoki

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CS804883

SUMMARY

Studies of student attitude and performance on reading comprehension tasks and teacher performances in the teaching of reading comprehension have set priorities for this research.

A series of lessons on active student-initiated responses was developed for this study and was used by the investigator with the experimental students. The active student-initiated response lessons included instruction on questioning strategies, storytelling, story theater, role-playing, and culminating activities. The control group received lessons based on teacher-initiated oral/written questions.

The findings indicated a trend favoring the experimental strategy as compared with the control. Significant differences favoring the experimental treatment were found in regard to non-literal responses and attitude towards reading.

Implications from this study, then, free the teacher to use an alternative strategy which affects reading comprehension both literally and non-literally. In addition, the alternative strategy may affect attitude by basing instruction in a philosophical framework that portrays learning as active and self-initiated.

STATEMENT OF THE PROBLEM

Reading comprehension and attitudes towards reading have been areas of concern for teachers and reading researchers alike. Studies of teacher performances in the teaching of reading comprehension and student performance on reading comprehension tasks have set priorities for this research.

Surveys of classroom practices (Austin and Morrison, 1963; Guszak, 1967; Durkin, 1974; Quirk, et al., 1976) indicate that teachers devote a minor portion of reading instruction to comprehension. These studies indicate that instruction in reading comprehension is virtually limited to literal recall questions. Assessment in reading comprehension (Porter, 1973; Applebee, 1977) yields inadequate scores, specifically in interpretive and critical reading skills. Survey studies of reading comprehension pedagogy and student reading attainment indicate that teachers need to promote non-literal reading comprehension skills. Therefore, this study sought to investigate alternative strategies for teaching reading comprehension other that teacher-led literal discussion and written assignments.

On a theoretical base, if one believes that reading is an active mental process (Thorndike, 1917; Davis, 1972; Chapman, 1974), then one should be concerned with teaching students a procedure for becoming active processors. With existing teaching strategies, instructors are requiring students to respond to another's, the teacher's, selected means of analysis. In utilizing this passive strategy, teachers may be keeping students from becoming active independent learners.

PURPOSE

The first purpose of this study was to investigate practical alternative strategies for increasing reading comprehension.

The strategies explored were alternative to teacher-led oral discussions and/or teacher developed question/student written response answer exercises.

As a second purpose, the study explored the added dimension of student-initiation (Carlton, 1964; Anderson, 1972) to active response. The term active student-initiated response, then, includes the two variables of firsthand re-enactment and student-initiation of responses.

Past studies (Carlton, 1964; Ingersoll and Kase, 1970; Conner, 1973) have shown positive trends toward the effectiveness of active responses on reading achievement. Work in the area of active responses and reading has largely been limited to the teacher directing an entire classroom stage production with each story read rather than including the teaching of specific dramatic techniques.

Studies investigating the use of active responses have been limited to teacher-led strategies. Research conducted in the area of student directed activities (Anderson, 1972) has indicated positive correlations with reading achievement. Therefore, the present study investigated the combined variables of teaching specific active student-initiated activities.

Until recently, the attitude variable has been a neglected factor in reading comprehension (Athey, 1971; Mathewson, 1976; and Summers, 1977) due to difficulties of measurement. Conclusions from the few fragmented studies devoted to exploring the relationship between attitudes and reading achievement indicate that attitude does have a positive and facilitating effect upon comprehension (Bernstein, 1955; Groff, 1962; and Schnayer, 1969.) The insights provided by these studies have set a third purpose for this investigation. Specifically, the study explored the change in attitude towards reading as a result of two methods of instruction.

Therefore, the signmificance of this study was to determine the effects of active student-initiated responses as an effective

alternative strategy for increasing literal and non-literal reading comprehension and attitudes toward reading.

DEFINITION OF TERMS

Definition of terms basic to this study are as follows:

1. Active student-initiated responses are those student-initiated verbal and non-verbal acts which are improvised dramatic interpretations of a particular story's character, plot, settings and theme. Memorization of lines, cast of characters, scenery and costumes are eliminated. Scene selection and interpretations are spontaneous and student selected. Emphasis is placed on student selection of scene(s) and interpretation, the goal being that the student seeks a purpose for deepening his/her understanding of character, plot, setting and theme, rather that perfecting a total stage production. During the process of recreating scene(s), the students will have participated in a firsthand experience of physically and mentally recalling necessary story elements, building emages, and correcting misinformation about the passages read.

2. Active student-initiated response strategy consists of teaching the specific skills of point of view and relating student's experience type questions, storytelling, story theater, and role-playing. Initially active responses must be taught and therefore teacher-led. Upon instruction in each of the specific skills, however, students are expected to be able to utilize self-initiation and select whichever elements they wish as an active student-initiated response to a story selection read.

3. Literal comprehension is the restating of specific facts as presented in the story selection read. It includes simple semantic substitutions which reflect transformations to the deep structure within a given thought unit.

4. Non-literal comprehension is defined as responses which demonstrate that the reader has transcended the specific facts presented by the surface level statement of a story. It requires the reader to assimilate literal statements and to make implicit responses reflecting intersentence transformation to the deep structure, causality, judgment, conjecture, refinement and elaboration.

5. Errors are those works and/or statements not included in the literal story and in direct contradiction to the information presented in the story.

6. Attitude, according to Allport, is a "mental and neutral state of readiness which is organized through experience" (Summers 1977; p. 139) specifically through exposure to methods of active student-initiated or teacher-led instruction. It influences the individual's response to a related situation, as reading comprehension.

HYPOTHESES

Specifically, the following questions were formulated in order to gather data for the proposed experimental study: Will students who are taught to follow the reading of a story with active student-initiated responses produce a greater number of literal and non-literal responses than students who follow the reading of an identical story with responses to oral and written questions? Will the responses include fewer errors? Will the active student-initiated group score higher on positive items of a reading attitude inventory?

METHOD

During the four weeks of treatment, the experimental group was exposed to the active student-initiated response strategies while the control group was exposed to identical reading selections

followed by teacher-initiated discussion and questions. The instructional time was held constant, while the instructional strategies were varied according to the planned treatment.

Both experimental and control groups were taught by the investigator with research assistants observing and assessing the two different teaching strategies. This was to ensure that lesson formats and objectives were followed and bias would not occur.

The experimental group received a series of lessons on active student-initiated responses. The series was developed specifically for this study and used by the investigator with the experimental students. The active student-initiated response lessons included instruction on questioning strategies, storytelling, story theater, role-playing, and culminating activities. Integral to the instruction was a time for student initiation of the newly acquired skills. (See Appendix.)

The control group received daily sixty minute lessons based on teacher-led strategies of written and oral questions. The control group received written and oral questions following the silent reading of a story identical to the experimental group's story. The control group lessons were taught in a format following the eclectic lesson plan found in modern basal readers. In utilizing the eclectic format, the teacher motivated students, introduced new words, provided guided questions, and led a discussion about the story read. The question types utilized adhered to Guszak's observation of question types used in classroom practice: 70.4 percent literal and 29.6 percent non-literal (Guszak, 1967).

DESIGN AND ANALYSIS

Pretesting was necessary for the purposes of 1) screening the students to select those with at least a third-grade reading ability to eliminate a decoding variable; 2) matching students

in order to meet the requirements of the matched pair posttest control group experimental design; and 3) providing practice to overcome interfering effects of uniqueness and unfamiliarity of the retell test procedure and tape recorder.

Based on a posttest control group experimental design, data were analyzed throughout using a directional correlated t test for each of the dependent variables: literal retell of "Urashima Taro" story, non-literal retell of "Urashima Taro" story, errors in retell of "Urashima Taro," Metropolitan Achievement Test (form G) scores, and Campbell's Reading Attitude Inventory. With the use of the directional correlated t test, the main effects of the experimental versus control groups were analyzed separately. In all cases, significance was sought at the .05 level.

CASE STUDIES

Five students were selected from each group and matched according to high, middle and low permormances on the Metropolitan Achievement Test (form F) and personality types of aggressive and shy as identified by school personnel.

These ten students were observed, interviewed and administered intervening retell tests upon the completion of each unit. A modification of time sampling design was utilized for gathering these data.

Informal data collected on individual students gave further insight to processes involved in reading comprehension. The data provided information about appropriateness of active student-initiated response approach, since no material and/or approach is ideal for all students (Bond and Dykstra, 1968.)

FINDINGS AND CONCLUSIONS

This study proposed to explore alternative strategies to increase reading comprehension. The findings indicated a trend

TABLE 1

CORRELATED t TEST ANALYSIS OF LITERAL ITEMS IN POSTTEST RETELL

Pair	Control	Experimental	D	D^2
1	27	32	-5	25
2	28	24	4	16
3	21	35	-14	196
4	16	35	-19	361
5	17	29	-12	144
6	17	12	5	25
7	7	20	-13	169
8	21	17	4	16
9	17	7	10	100
10	3	35	-32	1024
Σ =	174	246	-72	2076
$\bar{X}$ =	17.4	24.6	-7.2	

$$t = \frac{\Sigma D}{\sqrt{[N \Sigma D^2 - (\Sigma D)^2] / N - 1}}$$

$$= \frac{-72}{\sqrt{10 \times 2076 - (-72)^2 / 10 - 1}}$$

$$= 1.73^*$$

*not significant t (.05) = 1.833

TABLE 2

Correlated t TEST ANALYSIS OF NON-LITERAL WORDS IN POSTTEST RETELL

Pair	Control	Experimental	D	D^2
1	11	34	-23	529
2	15	14	1	1
3	19	63	-44	1936
4	0	4	-4	16
5	0	15	-15	225
6	9	0	9	81
7	5	22	-17	289
8	9	16	-7	49
9	11	4	7	49
10	3	80	-77	5929
Σ =	82	252	-170	9104
$\bar{X}$ =	8.2	25.2	-17.0	

$$t = \frac{\Sigma D}{\sqrt{[N \Sigma D^2 - (\Sigma D)^2] / N - 1}}$$

$$= \frac{-170}{\sqrt{10 \times 9104 - (-170)^2 / 10 - 1}}$$

$$= 2.0459^*$$

*Significant t (.05) = 1.833

TABLE 3

CORRELATED t TEST ANALYSIS OF ERROR WORDS IN POSTTEST RETELL

Pair	Control	Experimental	D	D^2
1	1	0	1	1
2	1	0	1	1
3	0	0	0	0
4	5	0	5	25
5	1	1	0	0
6	2	1	1	1
7	1	1	0	0
8	1	0	1	1
9	1	0	1	1
10	0	1	-1	1
Σ =	13	4	9	31
$\bar{X}$ =	1.3	0.4	0.9	

$$t = \frac{\Sigma D}{\sqrt{[N \Sigma D^2 - (\Sigma D)^2] / N - 1}}$$

$$= \frac{9}{\sqrt{[10 \times 31 - (9)^2] / 10 - 1}}$$

$$= 1.7857^*$$

*not significant t (.05) = 1.833

TABLE 4

CORRELATED t TEST ANALYSIS OF METROPOLITAN ACHIEVEMENT TEST FORM G POSTTEST SCORES

Pair	Control	Experimental	D	D^2
1	90	89	1	1
2	84	83	1	1
3	81	79	2	4
4	78	72	6	36
5	74	74	0	0
6	80	74	6	36
7	68	75	-7	49
8	57	62	-5	25
9	48	50	-2	4
10	46	77	-31	961
Σ =	706	735	-29	1117
$\bar{X}$ =	70.6	73.5	-2.9	

$$t = \frac{\Sigma D}{\sqrt{[N \Sigma D^2 - (\Sigma D)^2] / N - 1}}$$

$$= \frac{-29}{\sqrt{[10 \times 1117 - (-29)^2] / 10 - 1}}$$

$$= 0.856^*$$

*not significant t (.05) = 1.833

TABLE 5

CORRELATED t TEST ANALYSIS OF CAMPBELL'S
READING ATTITUDE INVENTORY - POSTTEST SCORES

Pair	Control	Experimental	D	D^2
1	4.2	4.9	-0.7	.49
2	3.8	3.8	0	0
3	3.75	3.6	.15	.0225
4	2.85	4.35	-1.5	2.25
5	3.0	3.6	-0.6	.36
6	3.25	4.35	-1.1	1.21
7	3.3	3.2	0.1	.01
8	3.55	4.55	-1.0	1.0
9	3.25	4.45	-1.2	1.44
10	4.5	3.95	.55	.3025
Σ =	35.45	40.75	-5.3	7.085
$\bar{x}$ =	3.545	4.075	-0.53	

$$t = \frac{\Sigma D}{\sqrt{[N \Sigma D^2 - (\Sigma D)^2] / N - 1}}$$

$$= \frac{-5.3}{\sqrt{[10 \times 7.085 - (-5.3)^2] / 10 - 1}}$$

$$= 2.4315272^*$$

*significant t (.05) = 1.833

TABLE 6

ELABORATION / DIVERSITY CHART
CASE STUDY STUDENTS'
TOTAL NUMBER OF NON-LITERAL RETELL ITEMS
CLASSIFIED ACCORDING TO
SIMPSON'S INFERENCE CATEGORIES

CASE STUDY CONTROL STUDENTS	SETTING	PLOT-Elaboration	-Additions	-Cause/Effect	CHARACTER-External	-Internal	-Cause/Effect	CONVERSATION	THEME
1. High Achiever	4	1	0	0	0	2	0	0	0
2. Aggressive	1	1	1	1	2	1	0	1	0
3. Middle-Achiever	0	1	0	0	0	0	0	0	0
4. Shy	1	1	1	1	2	0	0	0	0
5. Low-Achiever	0	3	0	1	2	1	0	0	0
Σ =	6	7	2	3	6	4	0	1	0
$\bar{x}$ =	1.2	1.4	0.4	0.6	1.2	0.8	0	0.2	0

CASE STUDY EXPERIMENTAL STUDENTS	SETTING	PLOT-Elaboration	-Additions	-Cause/Effect	CHARACTER-External	-Internal	-Cause/Effect	CONVERSATION	THEME
1. High Achiever	2	2	0	1	0	1	1	0	0
2. Aggressive	5	5	0	4	5	9	1	2	1
3. Middle-Achiever	4	1	0	0	0	1	1	0	0
4. Shy	1	3	0	0	2	2	0	0	0
5. Low-Achiever	7	10	1	0	2	8	0	9	0
Σ =	19	21	1	5	9	21	3	11	1
$\bar{x}$ =	3.8	4.2	0.2	1.0	1.8	4.2	0.6	2.2	0.2

TABLE 7

INTERVENING AND FINAL RETELL TEST SCORES
OF CASE STUDY STUDENTS

	* RETELL TEST # 1				RETELL TEST # 2				RETELL TEST # 3				RETELL TEST # 4				FINAL RETELL TEST			
CASE STUDY CONTROL STUDENTS	Literal Items	Non-Lit. # Words	Non-Lit. Items	Error # Words	Literal Items	Non-Lit. # Words	Non-Lit. Items	Error # Words	Literal Items	Non-Lit. # Words	Non-Lit. Items	Error # Words	Literal Items	Non-Lit. # Words	Non-Lit. Items	Error # Words	Literal Items	Non-Lit. # Words	Non-Lit. Items	Error # Words
1. High-Achiever	12	10	3	0	11	2	1	0	13	0	0	2	8	0	0	1	28	15	3	1
2. Aggressive	11	12	2	0	11	0	0	0	12	0	0	0	8	7	1	1	21	19	5	0
3. Middle-Achiever	8	1	1	0	8	0	0	0	9	0	0	0	6	0	0	0	17	0	0	1
4. Shy	9	5	1	0	10	4	2	0	12	0	0	1	9	3	1	0	17	9	2	2
5. Low-Achiever	6	11	2	0	8	21	4	0	8	0	0	0	3	0	0	2	3	3	1	0
Σ =	46	39	9	0	48	27	7	0	54	0	0	3	34	10	2	4	86	46	11	4
$\bar{x}$ =	9.2	7.8	1.8	0	9.6	5.4	1.4	0	10.8	0	0	0.6	6.8	2	0.4	0.8	17.2	9.2	2.2	0.8
CASE STUDY EXPERIMENTAL STUDENTS																				
1. High-Achiever	10	14	2	0	9	5	1	0	13	0	0	0	9	0	0	0	24	14	4	0
2. Aggressive	10	37	5	0	11	6	2	1	11	45	7	0	8	42	8	0	32	34	10	0
3. Middle-Achiever	11	0	0	0	9	14	2	0	10	0	0	0	4	8	2	1	29	15	3	1
4. Shy	9	0	0	1	10	12	2	0	8	0	0	1	7	0	0	0	17	16	6	0
5. Low-Achiever	11	14	3	0	10	21	2	0	13	0	0	1	13	35	9	0	35	80	23	0
Σ =	51	65	10	1	49	58	9	1	55	45	7	2	41	85	19	1	137	159	46	1
$\bar{x}$ =	10.2	13	2	0.2	9.8	11.6	1.8	0.2	11.0	9	1.4	0.4	8.2	17	3.8	0.2	27.4	31.8	9.8	.2

* Retell test # 1 administered upon completion of Unit 1: Developing questioning skills
Retell test # 2 administered upon completion of Unit 2: Storytelling
Retell test # 3 administered upon completion of Unit 3: Story Theater
Retell test # 4 administered upon completion of Unit 4: Role Playing
Final retell test administered upon completion of total treatment session.

TABLE 8

TOTAL NUMBER OF NON-LITERAL
CONTENT WORDS PER NON-LITERAL ITEM
OF CASE STUDY STUDENTS

CASE STUDY CONTROL STUDENTS	N-L Items	N-L Words	Average # Words/N-L Item
1. High Achiever	7	27	3.9
2. Aggressive	8	38	4.8
3. Middle-Achiever	1	1	1.0
4. Shy	6	21	3.5
5. Low-Achiever	7	35	5.0
Σ =	29	122	122/29=
$\bar{x}$ =	5.8	24.4	4.21
CASE STUDY EXPERIMENTAL STUDENTS			
1. High Achiever	7	33	4.7
2. Aggressive	32	130	4.1
3. Middle-Achiever	7	37	5.3
4. Shy	8	28	3.5
5. Low-Achiever	37	160	4.1
Σ =	91	378	378/91=
$\bar{x}$ =	18.2	75.6	4.2

favoring the alternative strategy of active student-initiated responses as indicated by the mean scores. The trend, however, does not reach statistical significance in the areas of literal and error responses and general reading comprehension. (See Tables 1,3, & 4) Significant differences favoring the alternative strategy treatment were found in regard to non-literal responses and attitude towards reading. (See Tables 2 & 5)

Further, this study purposed to explore active response activities with the added dimension of student-initiation. Findings from this study again showed a trend favoring active student-initiated responses. However, no significant differences were found between the experimental and control groups in terms of student initiation and literal reading comprehension, errors in retell, and general reading comprehension. Significant differences were found in terms of student-initiation and non-literal reading comprehension.

A third purpose reflected changes in attitude towards reading. This study concluded that the experimental group did score significantly higher on the positive items in a reading attitude inventory. The results of this study strongly suggest the use of active student-initiated responses to improve attitude toward reading.

The findings from the case study portion indicated that students exposed to active student-initiated responses do better in 1) fluency, the ability to produce a greater number of non-literal content words; 2) elaboration, the ability to produce a greater number of non-literal items reflecting literary types as categorized by Simpson (1976); and 3) elaborative ability to produce a greater diversity of non-literal items reflecting literary types as categorized by Simpson. (see tables 6, 7, 18) The analysis and findings of this study indicate that investigation needs to be conducted in the area of the retell test as a valid comprehension measure. The retell test may be a better comprehension measure than multiple choice, true/false, and short answer fill-in tests. A retell forces the student to initiate and relate whatever information he/she has obtained from the reading without the test question triggering or stimulating a response for recall.

It also appears to allow for much open-ended responses, including non-literal responses (Y. Goodman and Burke, 1972, and K. Goodman, 1975).

In this study, students were able to retell a story with much fluency, number of words, and elaborations, use of non-literal items reflecting different literary categories. However, the retell test became limiting when it forced the child to remain on a logical story plot structure. It does not allow for change of set, the exploration and relating of different non-literal thoughts.

A solution to this limitation of the retell test might be to combine a retell test with open-ended questions. In this situation, the examiner would begin with a retell test format to gather as much information from the child without triggering any responses, then ask open-ended questions to allow the student to relate non-literal responses as to change of set.

The case study analysis indicates a difference in response to the type of readings selected for retell tests. Short paragraphs were utilized for the intervening tests because the examiner did not wish to overtest or complicate the study by spending extra time with the case study students. Comparing the number and types of responses from these intervening paragraph selections with the final lengthier literary selection of "Urashima Taro", seems to indicate that the longer and better literary selection leads to greater opportunities for elaborations to be made. Again, this area of differences in response to literary selections is a topic for future exploration.

IMPLICATIONS

Teachers often ask, "What can the classroom teacher do to increase reading comprehension at both the literal and non-literal levels?" This experimental study helped to focus the practical questions of the classroom teacher.

The findings show a trend favoring the experimental group which received active student-initiated responses as compared with the control group which received teacher-initiated responses.

The indication is that teachers should not fear the use of active student-initiated responses such as creative dramatics, miming and storytelling. Such strategies used in lieu of teacher-initiated questions are not likely to produce lower gains in comprehension. Additionally, positive attitudes toward reading seem to be facilitated by the student-initiated response strategy.

Suggestions for active student-initiated responses have often been categorized in the basal readers teacher's guide book as "follow-up" or "enrichment ideas." This study would place them in a more focal instructional role. The findings from this study indicate that teachers might, with some confidence, risk departure from teacher-initiated discussions. Such widely practiced activities as teacher-initiated discussions, workbook pages, and written responses may be at least partly replaced by more involving activities such as story theater and student-initiated questions.

The use of active student-initiated comprehension strategies apparently does not result in lower gains in literal comprehension. Non-literal comprehension and attitudes towards reading are likely to show superior gains, compared with non-literal comprehension and attitudes resulting from teacher-directed passive activities.

One may speculate on other advantages of the active student-initiated treatment. Informal data provided by the case study center more specifically on the questions of increasing non-literal responses. Students receiving the active student-initiated response strategy are more likely to do better than students receiving the control treatment in both quantity and quality of non-literal responses.

With the added emphasis on quality elaboration, or greater number of non-literal items reflecting different types of inferences and a greater diversity, teachers will perhaps take more time and energy in providing their students with active student-initiated response type activities.

A second question often asked is this: "Are teacher-initiated questions and discussion the only sound way to teach literal and non-literal reading comprehension or are there alternatives?" The findings did not indicate that the active student-initiated response treatment significantly surpassed the teacher-initiated

discussion and written responses in all aspects of reading comprehension. Rather, both treatments were statistically equivalent in literal comprehension, while active student-initiated strategy statistically enhanced the non-literal component of reading comprehension.

Equivalency allows for alternatives rather than "a one and only" strategy to be handed down to teachers. This study has opened doors for teachers to include a variety of strategies in the teaching of reading comprehension. Teachers can continue to use the methods in which they are secure as well as challenge themselves to different activities such as those included in the active student-initiated response strategy.

With the variety of strategies available, teachers should diagnose the particular weakness in reading comprehension and utilize the appropriate strategy. For example, a teacher may diagnose students with difficulties in non-literal comprehension and/or poor attitude towards reading. This teacher may have better success with these students utilizing activities included in the active student-initiated response strategy. Another teacher may have students with difficulties in literal comprehension and may best serve these students utilizing either active student-initiated activities or teacher-initiated questions and oral/written activities.

Implications from the preceding study indicate that teachers should also consider the different learning styles of students (Ramirez and Castenëda, 1974) and adapt accordingly to initiate instruction based on the students's strong learning style. Teachers should expose students to many styles allowing for greater and easier learning. Teachers should utilize a child's strengths, while broadening and encouraging learning to the weaker learning styles of the child in order to provide the student with multiple means of analysis. (Y. Goodman and Burke, 1972)

Additional case studies might be initiated in order to provide more insight about how effectively students can utilize active student-initiated responses and/or teacher-initiated discussions and written response activities. Case studies may reveal learner differences as indicated by the dramatic gains appearing in the scores of the low achieving student in the experimental group,

even if regression factors are considered. By identifying learning styles and achievement abilities, perhaps one could develop a learner profile that would call for a recommendation of one treatment or the other.

A third practical question is this: "How can teachers utilize the two concepts of self seeking or student initiated behavior and simulation of firsthand experiences?"

The desire for students to be enthusiastic about work as they are about play may help readers of this study to interpret the findings with regard to the attitude variable. As a result of using student initiation and play therapy variables, the experimental students achieved significantly better attitudes toward reading than the control group. In play, (Almy, 1949; Piaget, 1962; Dewey, 1966; Neuman, 1971) students initiate their own dramatization to investigate their environments just as they do with the use of active student-initiated responses for exploring what they read.

The concepts of firsthand experiences are also enhanced by the actual re-enactments and teachers can provide and widen firsthand experience cognitively and affectively for children through story-telling (Bettelheim, 1975) and point of view techniques (Piaget, 1962).

Implications from this study, then, free the teacher to use an alternative strategy which affects reading comprehension both literally and non-literally. In addition, the alternative strategy, in which learning is portrayed as fun and self-initiated, may have a positive effect on students' attitudes toward reading.

APPENDIX

EXPERIMENTAL GROUP TREATMENT

The experimental group received a daily sixty-minute lesson for nineteen days based on the following description of active student-initiated response lessons. The active student-initiated response lessons were taught by the investigator. Each of the lessons was observed and monitored by two research assistants as to the appropriateness of teaching strategies utilized for the respective group. Through an evaluation-transfer component in the daily lessons, the teaching objectives were also checked. The evaluation component was included after the instructional part of the lessons when the students were told to go back to their seats and do an application exercise without the aid of the teacher.

Unit One: Developing Questioning Skills

Questions are one avenue to helping students actively respond to literary elements. For example, students were instructed to become characters and to take the point of view of a character. In becoming characters, the students can better understand the motives and actions of the characters and in turn can begin to anticipate plot structure. According to theoretical models on the process of reading, the ability to predict and hypothesize is identified as a characteristic of good readers (Huey, 1908; Goodman, 1969; Smith, 1971; Williams, 1973).

The opposite can also be done. Students can learn to find elements within the story and tie those elements to their own life experiences in order to identify and apply what they read. Again, reading theorists suggest that the act of reading requires the reader to draw upon prior experiences and prior learning (Goodman, 1969; Smith, 1971; Williams, 1973).

Creative dramatic techniques, as interpreted by teachers, sometimes ignore the component of questions as a basis for giving structure to the students on how to interpret and make the characters come alive by relating to real life situations. To draw upon spontaneity is a starting point. Spontaneous production, however, is restricting as the student limits his/her point of view of various characters to his/her egocentric understandings. Therefore, in this unit, students were enabled to widen their choices and consider alternative actions and possibilities for predicting and hypothesizing.

The following activities, relevant to developing students' questioning abilities, were included in this unit.

A game called "jeopardy" exposed students to various types of literal and non-literal answers and questions. This exposure lesson attempted to help students to inductively analyze the content of an answer and question. The activity required the student to focus on the question word (who, what, where, when, why, how) contained in the interrogative and to match it appropriately with the answer. Example: given the answer, "Hansel and Gretel," students must appropriately match it with the question, "Who entered the Gingerbread House?"

In a second exercise, students were given a list of statements from a story and the teacher helped the students develop questions for each answer. Example: given the statement, "Cinderella lost her glass slipper as she flew down the stairs at the stroke of midnight," possible questions to be developed might include "Who lost her slipper?," "Was it due to her clumsiness or did midnight have something to do with it?" It was believed that this exercise enabled students to again examine the content of an answer in order to appropriately develop and ask related questions independent of the teacher.

Many a time authors write giving only the bare essentials. The rest is up to the reader: to build imagery based on givens, to begin to hypothesize, and to want to read to confirm and/or reject information formulated. The following three exercises required students to ask a sequence of logical questions in order to uncover an answer by accepting and/or rejecting information gathered.

In an exercise called "Whose Tale Do I Belong In.?" students were presented with a wolf character and asked "In which story do I belong?" Students listed possible titles with wolf characters and then developed questions to ask about unique characteristics and actions of the wolf in order to uncover the correct identity. This exercise was repeated, utilizing different folk and fairy tale characters.

Making a list of questions to find out about an object's attributes is a variation of the "Whose Tale Do I Belong In?" exercise. Here the students were given an envelope which exposed only part of a picture object. Students again made a list of possible questions in logical sequences to help them uncover the partially exposed object. Partially exposed ojected included a cake, an orange and the like.

Again to help students ask predicting questions, students were given an action picture and were required to make a list of important questions about happenings prior to the photographed picture and occurences which might follow.

Based on Sadker and Cooper's (1974) successful experimental research on increasing higher order questions asked by elementary school children, a modeling techique was incorporated to encourage students to ask their own literal and non-literal questions. Research has indicated that specific trainging in teaching students questions is needed; otherwise student question asking will remain alien to the elementary classroom, resulting in failure to "activate different senses, attitudes, and perceptions;...

generate a different, bolder, and more potent kind of intelligence ..." (Postman and Weingartner, 1969; p.27) Therefore, using a story such as "The Three Bears," the teacher developed questions on both the literal and non-literal levels. Students then developed and matched the teacher's question types with similar questions based upon another story such as "The Three Pigs."

As a result of the preceding activities, it was inferred that the students should be able to develop questions including both literal and non-literal types for the purpose of a student-led discussion based on the story of "Anansi's Hat Shaking Dance."

Unit Two: Storytelling

Storytelling is a living folk art which requires the skillful reconstruction of a tale. Storytelling was utilized as part of the active strategy for, to tell a story, students must apply their ability at taking different points of view. The skillful storyteller learns to tell a tale through the eyes of the author/narrator, the characters, and the audience.

Storytelling also requires the readers to build imagery. Since no pictures or props are available, only the words and voices of the storyteller give aid to creating imagery. Therefore, upon a demonstration of a story told without expressive voice intonation, understanding of characters, and anticipation of plot, students participated in exercises focusing upon appropriate voicetone variations. They were encouraged to improve upon the telling with words, phrases, and punctuation cues; relating own experiences in order to tell of an incident more effectively through the use of relating self questions; and taking different character points of view through questioning strategies.

Upon the completion of the above activities, the students were expected to demonstrate their competency in storytelling by retelling a commonly known folk tale from the point of view of a minor character.

Unit Three: Story Theater

Active student-initiated response exercises have focused on point of view and relating self experiences as a means of anticipating and constructing plot, as well as building imagery. The following series of activities emphasize the use of re-creating firsthand experiences. The closest re-creation one can experience is that of actual dramatization.

Siks (1961), McCaslin (1968) and others concur than creative dramatics is improvisation and should emphasize process rather than the product of an audience performance, yet much time and planning is involved. Therefore, to release the teacher from the technical elements and time involved in theatrical productions, a variation of creative dramatics was implemented.

The variation implemented is that of Paul Sills' Story Theatre, (1970). The 1970 Broadway performances of Paul Sills' Story Theatre utilized its actors in alternating roles of speaking characters and narrators who described the action. A variation was to have one narrator read the story while others performed by occasionally speaking lines created on the spot or memorized. A simple application for classroom use has been described by Sebesta (1975,1976):

> 1) Volunteer - whenever the story mentions a character or setting, someone must spring into action to create what is needed; 2) Mime when possible - show the meaning bodily as the narrator reads; 3) Disband as soon as the scene is over so that the stage isn't littered with discarded scenery and actors. (Sebesta, 1976: p. 968).

Story theater allows students to literally and concretely work the plot, character, and setting structures while freeing students to make inferences and elaborations on these literal elements. In order to achieve this objective, students were exposed to the three application rules of Story Theater as described by Sebesta. They were then given the opportunity to apply them to given stories ready by the teacher and later by students.

Unit Four: Role-Playing

Up to this point, active student-initiated responses stressed the literary elements of plot, character, and setting. The instructor utilized firsthand experiences to help students literally understand and recall elements as well as to help free them to make inferences about the literal items.

The literary element of theme is an inference item. According to Sebesta, theme is "the significance of the work--what the work is really about and how it says whatever it wishes to say. We may focus on theme through a question or a statement, either explicit or derived by inference." (Sebesta, 1975: p. 60) In order to focus on the element of theme, role-playing techniques were utilized.

Role-playing as defined by Fannie Shaftel (1967) is "a group of problem solving procedures that employs all the techniques of critical evaluation." (Shaftel, 1967: p. 133) In adapting the techniques of role-playing to reading, one should present students with a story deleting the final outcome or resolution of the story. With the reading of the story, students would then follow the procedures as outlined by Shaftel:

1) problem definition -- groups of students brainstorm possible thematic problem;
2) delineation of alternatives -- again students brainstorm and list possible negative and positive solutions to the problem determined;
3) exploring alternatives -- students examine alternative solution through impromtu dramatization;
4) decision making and generalizing -- students clarify issues and reflect upon theme. (Shaftel, 1967; p. 185)

After being introduced to the rules of role-playing, students

were given the opportunity to participate in a role-playing situation after the reading of R. Hoban's, A Bargain for Frances (1970). After participating in this teacher-led role-playing exercise, students were instructed to apply these skills in response to the reading of a segment of a story such as James Marshall's George and Martha (1972) and conduct their own role-playing sequences.

Unit Five: Active Student-Initiated Responses

After the sequence of lessons which emphasize character identification, relating self experiences, building of imagery, anticipation of plot, and thematic problems through firsthand re-created experiences and student initiation, students were given the following instructions for a final outcome application exercise. Instructions: "We've spent several sessions on different ways to work with literature. (List on board students' brain-storming recall of ideas, include any other alternatives suggested by students not taught during treatment sessions.) Now I want you to show me how you will work with the story, _____. I'll be present in the room if you choose to seek my aid, but you shall decide how to work with the story. You may choose or appoint a 'teacher', take turns leading, and/or have several leaders. You may also refer to the story at any time. (Go over list again.) You may do any one or several or combination of these ideas. (Leave list on board and copies of stories for students' use.)"

CONTROL GROUP TREATMENT

The control group received a daily sixty minute lesson for nineteen days based on teacher-led strategies of written and oral questions. Again the lessons were observed and monitored by two research assistants.

The control group was given written and oral questions following the silent reading of a story identical to the treatment groups' story. The control group lessons were taught to closely approximate

a regular eclectic lesson. In utilizing the eclectic format, the teacher motivated students, introduced new words, provided guided questions, and lead a discussion about the story read.

The written questions for the control group were developed by the researcher. These were based on the story content. They adhered to Guszak's observation of question types used in classroom practice: 70.4 percent literal, and 29.6 percent non-literal questions (Guszak; 1967). These questions were submitted to a panel of judges and were reliably classified according to Guszak's question types and percentages for use. The question types also included 29.6 percent non-literal questions, such as the point of view type questions used with the experimental group. The differentiation between the experimental and control group was in the teaching aspect of the questions. The control groups were exposed to non-literal questions 29.6 percent of the time but remained teacher-led with teacher-made questions. By contrast, the experimental group learned to create their own questions.

After the control group students completed the written assignment, these questions were then used as the basis for oral discussion with students answering and proving their answers by reading the text passages. An example of the lesson format follows:

1) Motivation and introduction of story, "Anansi's Hat Shaking Dance."
2) Introduction of new words.
3) Read the following story silently to find out answers to these questions. Ask teacher for any help with difficult words.
4) Write answers or circle correct multiple choice response to the following questions:
   a) In the old days did Anansi the spider have hair? (literal)
   b) What happened to Anansi's mother-in-law? (literal)
   c) Why didn't Anansi go with his wife Aso? (literal)
   d) How did Anansi mourn for his mother-in-law? (literal)

e) How long was this ritual to last?
(literal)

f) What happened on the fourth day?
(literal)

g) What did Anansi do when he heard his friends return?
(literal)

h) Why did Anansi begin to dance?
(literal)

i) Where do you often find spiders hiding?
(non-literal)

j) Draw a series of pictures to show Anansi's village dance. Draw them so that someone else can follow the dance instructions.
(non-literal)

5) Be prepared to discuss these questions in our reading group.

6) Allow students to read story and answer questions, individually.

7) Meet in group. Discuss questions. Allow students to prove answers by reading appropriate paragraph selections.

8) Additional questions to be asked if time allows:

a) You are Anansi. Why will you not come out of the tall grass?
(non-literal)

b) What did Anansi's friends do when they say Anansi take off his hat?
(literal)

c) You are one of Anansi's friends who laughed. Why were you so mean to him? Just think of all that Anansi went through, starving himself, burning his head, and withstanding all the pain. Now Anansi's so hurt that he's hiding in the grass, what are you going to do?
(non-literal)

9) Conclude lesson after sixty minutes.

All control group lessons followed this format. Time, literary selections, and teacher use of questions types were identical for control and experimental groups. Differentiation

of questioning strategy occurred in percentages of literal and non-literal questions and in teacher use of questions. The control teacher, the investigator, used non-literal questions 29.6 percent of the time as observed by Guszak, while the experimental group utilized more time with non-literal questions. The control teacher did not instruct control group on construction of questions, while the experimental teacher did.

BIBLIOGRAPHY

Almy, Millie C., Children's Experiences Prior to First Grade and Success in Beginning Reading, Contributions to Education #954, 1949.

Anderson, William W., "Self-directed Activity as a Variable in Reading Instruction," Reading World (October 1972), 3-9.

_____, A Study of the Effects of Self-directed Activity Upon Quantity, Quality, and Variety of Responses in a Groups Directed Reading-Thinking Activity. Unpublished doctoral dissertation, University of Virginia, 1971.

Applebee, Arthur N., "Perspectives on the National Assessment of Educational Progress." The Reading Teacher, 31 (November 1977) 250-253.

Athley, I. J., "Language Models and Reading," Reading Research Quarterly, VII (1971), 16-110.

Bernstein, M. R., "Relationship Between Interest and Reading Comprehension," Journal of Educational Research, 49 (1955), 283-288.

Bond, Guy L. and Dykstra, Robert, "The Cooperative Research Program in First-Grade Reading Instruction," Reading Research Quarterly (Summer 1967), 5-142.

Carlton, Lessie, A Report on Self-Directive Dramatization in the Regular Elementary Classroom and Relationship Discovered with Progress in Reading Achievement and Self Concept Changes, unpublished doctoral dissertation, University of Houston, 1964.

Chapman, Carita, A Test of a Hierarchical Theory of Reading Comprehension, unpublished doctoral dissertation, University of Chicago, 1974.

Conner, Laurence M., An Investigation Into the Effects of Selected Educational Dramatics Techniques on General Cognitive Abilities, unpublished doctoral dissertation, Southern Illinois University, 1973.

Davis, Frederick B., "Psychometric Research on Comprehension in Reading," Reading Research Quarterly, 7 (Summer 1972) 636-6.

Durkin, Dolores, "After Ten Years: Where Are We Now In Reading," The Reading Teacher, 28 (December 1974), 262-267.

Durost, Walter, Bixler, H., Wrightstone, J. W., Prescott, G. A., Balow, I. H., Metropolitan Achievement Tests, Forms F & G, Elementary Reading Tests. Harcourt, 1970.

Goodman, Kenneth, "An Analysis of Oral Reading Miscues: Applied Psycholinguistics," Reading Research Quarterly (Fall 1969).

_____, "The Reading Process," in Smiles, Sandra, and Towner, John, Proceedings of Sixth Western Symposium on Learning, Bellingham, Washington, 1975, 19-29.

Goodman, Yetta, and Carolyn Burke, Reading Miscue Inventory: Procedure for Diagnosis and Evaluation, MacMillian, 1972.

Groff, D. J., "Children's Attitudes Toward Reading of Their Critical Reading Abilities in Four Content-Type Materials." Journal of Educational Research, 55 (1962), 313-317.

Guszak, Frank J., "Questioning Strategies of Elementary Teachers in Relation to Comprehension," Reading and Realism, 13 (International Reading Association Convention Proceedings 1968). 110-116.

_____, "Teacher Questioning and Reading," The Reading Teacher, 21 (December 1967), 227-234.

Huey, Edmund Burke, The Psychology and Pedagogy of Reading, MIT Press, 1908, 1973.

Ingersoll, Richard L., and Kase, Judith, The Effects of Creative Dramatics on Learning and Retention of Classroom Materials, ED060 000, February 1970.

Mathewson, Grover C., "The Function of Attitude in the Reading Process," in Singer and Ruddel (Eds.), Theoretical Models and Processes of Reading, International Reading Association, 1976, 655-675.

Porter, Jane, "Research Report," Elementary English, 50 (January 1973) 107-110.

Quirk, Thomas J., Trismen, Donald A., Weinberg, Susan F., and Nalin, Katherine B., "Attending Behavior During Reading Instruction," The Reading Teacher, 29 (April 1976), 640-646.

Sadker, Myra and Cooper, James, "Increasing Student Higher-Order Questions," Elementary English, 51 (April 1974) 502-507.

Sakade, Florence (Ed.), Japanese Children's Stories, Tuttle, 1959.

Schnayer, S. W., "Relationships Between Reading Interest of Reading Comprehension," in J. A. Figurel (Ed.) Reading of Realism, International Reading Association, 1969.

Sebesta, Sam L. and Iverson, William J., Literature for Thursday's Child, SRA, 1975.

Sills, Paul, Paul Sills on Broadway Theatre, RCA, 1970.

Simpson, Mary Jett, Children's Inferential Responses to a Wordless Picture Book: Development and Use of a Classification System for Verbalized Inferences, unpublished doctoral dissertation, University of Washington, 1976.

Smith, Frank, Understanding Reading, Holt, 1971.

Summers, Edward G., "Instruments for Assessing Reading Attitudes: A Review of Research and Bibliography," Journal of Reading, IX (Summer 1977), 137-165.

Thorndike, Edward, "Reading as Reasoning: A Study of Mistakes in Paragraph Reading," Journal of Education Psychology, 8 (June 1917), 323-332.

Williams, Joanna P., "Learning to Read: A Review of Theories and Models," Reading Research Quarterly, VIII (Winter 1973), 121-146.